IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Ethan Spiegel Ashok Chippa Marek Tomaszewski Anthony Alles	Art Unit: Not Yet Assigned
Application Serial No.: Not Yet Assigned	Examiner: Not Yet Assigned
Filed: Herewith	
For: FORMAT FOR AUTOMATIC GENERATION OF UNIQUE ATM ADDRESSES USED FOR PNNI	
A Divisional of:	
Serial No.: 08/876,952	
Filed: June 17, 1997	

Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Along with the filing of this Divisional Application under Rule 1.53(b) please enter this Preliminary Amendment.

Express Mail" mailing label number: EL627469023US
Date of Deposit: May 9, 2001
I hereby certify that I am causing this paper or fee to be deposited with the United States Postal Service "Express Mail Post Office to Addressee" service on the date indicated above and that this paper or fee has been addressed to the Assistant Commissioner for Patents, Washington, D. C. 20231

Beverly Kehoe Shea
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May 9, 2001
(Date Signed)

IN THE SPECIFICATION

At page 2, lines 10 through 20, of the specification, "In known ATM systems, each node performing the PNNI protocol must be assigned a unique 20-byte ATM address in a standard format specified by the ATM Forum User-Network Interface Specification (Presently version 3.1). The "PNNI protocol" refers to the protocol specified by the ATM Forum Private Network-Network Interface Specification (presently version 1.0)."

At page 5, lines 4 through 13 of the specification, "Application Serial No. 08/862,915, filed May 23, 1997, Express Mail Mailing No. EM302071674US, in the same inventors, titled "Next Hop Selection In ATM Networks", attorney docket number CIS-025; and

Application Serial No. 08/863,031, filed May 23, 1997, Express Mail Mailing No. EM302071665US, in the name of the same inventor(s), titled "Call size Feedback on PNNI Operation", attorney Docket Number CIS-026."

At page 5, line 20 through page 6, line 3, of the specification, "An autoconfigured ATM address 100 comprises a 20-byte ATM address value, including an AFI field 110, a manufacturer ID field 120, a manufacturer-specific field 130, a switch number ID field 140, a device number ID field 150, and a selector field 160. The ATM address 100 is an ATM End System

Address as defined in Section 5.1.3.1 of the ATM Forum User-Network Interface Specification (version 3.1)".

At page 6, lines 11 through 18, "The manufacturer ID field 120 comprises two bytes and has a value which is specific to a manufacturer of the specific device, as specified by the ATM address authority associated with the selected value on the AFI field 110; for the ICD format that authority is the British Standards Institute. In a preferred embodiment, the value hexadecimal 00 91 is reserved for products manufactured by Cisco Systems, Inc. of San Jose, California. There is no special significance to this specific value; it is simply the value which is assigned to the manufacturer by the ATM address authority associated with the value hexadecimal 47 in the AFI field 110."

Page 6, line 20 through page 7, line 2, "The manufacturer-specific field 130 comprises four bytes and has a value assigned by the manufacturer. In a preferred embodiment, when the manufacturer is Cisco Systems, Inc., of San Jose, California, this value is uniformly selected to be hexadecimal 81 00 00 00. There is no special significance to the special value, which could be any selected value so long as maintained consistent across devices manufactured by the same manufacturer."

IN THE CLAIMS

Please cancel Claims 1-10 without prejudice. Please add the following new claims. These are unmarked claims, including claims not amended. These claims are set forth for the convenience of the Examiner. Marked up claims are provided in an Appendix to this Preliminary Amendment.

11. (New) A method, comprising:

assigning a private network-network interface (PNNI) peer group identification to a device to be coupled with an asynchronous transfer mode (ATM) network based on a manufacturer of the device and a product group to which the device belongs; and

auto-configuring the device at a point of manufacture with an ATM address using the assigned PNNI peer group identification.

12. (New) The method of claim 11, wherein the PNNI peer group identification includes a two bit field indicating manufacturer.

13. (New) The method of claim 11, wherein the PNNI peer group identification includes a four bit field indicating product group.

14. (New) The method of claim 11, wherein the ATM address includes a switch identification field identifying a switch to which the device will be connected or a default switch.

15. (New) The method of claim 14, wherein the switch identification field can be altered at a point of installation.

16. (New) The method of claim 14, wherein the switch identification field consists of a media access control (MAC) address.

17. (New) The method of claim 14, wherein the switch identification field consists of six bytes.

18. (New) The method of claim 11, wherein the ATM address includes a device identification field unique to the device.

19. (New) The method of claim 18, wherein the device identification field can be altered at a point of installation.

20. (New) The method of claim 18, wherein the device identification field consists of a media access control (MAC) address.

21. (New) The method of claim 18, wherein the device identification field consists of six bytes.

22. (New) A machine-readable storage medium tangibly embodying a sequence of instructions executable by the machine to perform a method comprising:

assigning a private network-network interface (PNNI) peer group identification to a device to be coupled with an asynchronous transfer mode (ATM) network based on a manufacturer of the device and a product group to which the device belongs; and

auto-configuring the device at a point of manufacture with an ATM address using the assigned PNNI peer group identification.

23. (New) The machine-readable storage medium of claim 22, wherein the PNNI peer group identification includes a two bit field indicating manufacturer.

24. (New) The machine-readable storage medium of claim 22, wherein the PNNI peer group identification includes a four bit field indicating product group.

25. (New) The machine-readable storage medium of claim 22, wherein the ATM address includes a switch identification field identifying a switch to which the device will be connected or a default switch.

26. (New) The machine-readable storage medium of claim 25, wherein the switch identification field can be altered at a point of installation.

27. (New) The machine-readable storage medium of claim 25, wherein the switch identification field consists of a media access control (MAC) address.

28. (New) The machine-readable storage medium of claim 25, wherein the switch identification field consists of six bytes.

29. (New) The machine-readable storage medium of claim 22, wherein the ATM address includes a device identification field unique to the device.

30. (New) The machine-readable storage medium of claim 29, wherein the device identification field can be altered at a point of installation.

31. (New) The machine-readable storage medium of claim 29, wherein the device identification field consists of a media access control (MAC) address.

32. (New) The machine-readable storage medium of claim 29, wherein the device identification field consists of six bytes.

33. (New) A device, comprising:

an asynchronous transfer mode (ATM) communications component to communicate on an ATM network;

a memory storage component to store an ATM address, which includes a private network-network interface (PNNI) peer group identification based on a manufacturer of the device and

a product group to which the device belongs, to facilitate communication on the ATM network;

an interface to allow the manufacturer of the device to input the ATM address into the memory storage component at a point of manufacture automatically.

34. (New) The system of claim 33, wherein the PNNI peer group identification includes a two bit field indicating manufacturer.

35. (New) The system of claim 33, wherein the PNNI peer group identification includes a four bit field indicating product group.

36. (New) The system of claim 33, wherein the ATM address includes a switch identification field identifying a switch to which the device will be connected or a default switch.

37. (New) The system of claim 36, wherein the switch identification field can be altered at a point of installation.

38. (New) The system of claim 36, wherein the switch identification field consists of a media access control (MAC) address.

39. (New) The system of claim 36, wherein the switch identification field consists of six bytes.

40. (New) The system of claim 33, wherein the ATM address includes a device identification field unique to the device.

41. (New) The system of claim 40, wherein the device identification field can be altered at a point of installation.

42. (New) The system of claim 40, wherein the device identification field consists of a media access control (MAC) address.

43. (New) The system of claim 40, wherein the device identification field consists of six bytes.

REMARKS

Enclosed is a divisional application and a copy of the Declaration/Oath submitted in accordance with Rule 1.53(b). Please enter this Preliminary Amendment prior to examination of this divisional application.

Consideration of this divisional application as amended is respectfully requested.

Claims 1-10 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by U.S. Patent No. 5,517,617 of Sathaye et al. (Sathaye).

Claims 1 through 10 have been cancelled. New claims 11 through 43 have been added.

Support for new claims 11-43 is found in the specification at pages 4-9, in Figure 1, and in claims 1-10 as originally filed.

It is respectfully submitted that in view of the above-listed support, new claims 11 through 43 do not add new matter.

The Examiner has rejected claims 1-10 under 35 U.S.C. §102 as being unpatentable over Sathaye. The Examiner has stated that

> Sathaye discloses a method of configuring an ATM address for a device (1620, 1650, 1660) coupled to an ATM network (1610), including the step of selecting said ATM address to include:
>
> a first portion ("39/47.9999.00000000") selected to equal a value unique to a class of the devices which includes the device (col. 10, lines 19-22 and lines 53-66, wherein Sathaye disclose the default H prefix supplied by the device manufacturer that reads on the claimed limitation. Furthermore, in according to FIGS. 2-3, col. 3, line 65 to

col. 4, line 59, Sathaye shows the H prefix is four bytes long, represented as FIELD1.FIELD2.FIELD3.FIELD4. The hierarchical address of each switch in FIG. 2 is shown using the above format of the H prefix. The addresses of switches 305A and 305B are AA.dec.lkg.1 and AA.dec.lkg.2, which indicate a class of devices of Digital Equipment Corp. manufacturer (dec). The address of switch 301 is AA.MCI.ff.5, which indicates a class of devices specified for MCI. The addresses of switches 313A and 313B are AA.hp.cfd.6 and AA.hp.cdf.7, which indicate a class of devices of Hewlett-Packard (HP). Therefore, discussed recitation also reads on the claimed limitation of "specified by a manufacturer for the device;

a second portion (ESI(1)) of the ATM address comprising a switch number ID selected to equal a second potion unique value, wherein said second portion unique value is unique to the device as (col. 10, lines 33-40 and col. 11, lines 1-7, wherein Sathaye discloses ESI (1) is the unique identifier that reads on the claimed limitation); and the features set forth as claimed.

(pp. 2-3 Office Action 10/02/00).

Applicants respectfully submit, however that new claims 11 and 22 are not anticipated under 35 U.S.C. §102 by Sathaye. New claims 11 and 22 include the limitations

assigning a private network-network interface (PNNI) peer group identification to a device to be coupled with an asynchronous transfer mode (ATM) network based on a manufacturer and a product group to which the device belongs; and

auto-configuring the device <u>at a point of manufacture</u> with an ATM address using the assigned PNNI peer group identification.

(New claims 11 and 22) (emphasis added).

In contrast, Sathaye does not disclose auto-configuring the device at a point of manufacture with an ATM address using an assigned PNNI peer

group identification based on a manufacturer and product group. Sathaye discloses that

> In FIG. 7, the flow enters block 701, where processor 410 reads the default H prefix from NVROM non-volatile read only memory 418. The address is then configured with the H prefix 105 as read from NVROM non-volatile read only memory 418, the L prefix 103C is set equal to the switch IEEE physical address, and the ESI field 101 is also set equal to the IEEE physical address, as shown in FIG. 1C. The flow then enters blocks 710. At block 710 the switch reads a neighbor's T bit value. At block 712 the value of the neighbor's T bit value is tested. In the event that the test in block 712 answers that the neighbor's T bit value is set to "0", then the neighbor is not trusted, and the flow enters block 714. At block 714 it is determined whether or not any more neighbors switches exist. In the event that there are more neighbor switches, the flow proceeds along line 715 to loop back to block 710, where the next neighbor's T bit value is read by switch 400. In the event that there are no more neighbors whose T bit value has not been tested, then the flow goes to block 716 where the flow returns to FIG. 6 at block 620. The flow then proceeds to Block 622, where the address configuration flow ends.
>
> In the event that the test of the T bit value of a neighbors T bit at block 712 finds that the neighbor's T bit is set to "1", then the neighbor switch is trusted, and the flow goes to block 720. At block 720 the switch 400 adopts the neighbor's H Prefix. The flow then goes to block 722 where the adopted neighbor's H Prefix is stored into NVRWM non-volatile read-write memory 420. The flow then enters block 716 where the flow returns to FIG. 6, at block 620. The address configuration flow then ends at block 622.
>
> In the event that all neighbor switches are interrogated, and it is found that all have their T bit set equal to "0", then the H Prefix 105 is set to the default value read from Read Only Memory 418, as occurred at block 701.

(Sathaye Col. 7, lines 28-61).

Given that new claims 12-21 depend from claim 11 and new claims 23-32 depend from claim 22, applicants submit that new claims 12-21 and 23-32 are not anticipated under 35 U.S.C. §102 by the reference cited by the Examiner.

Applicants respectfully submit that new claim 33 is not anticipated under 35 U.S.C. §102 by Sathaye. New claim 33 includes the limitations

> an asynchronous transfer mode (ATM) communications component to communicate on an ATM network;
>
> a memory storage component to store an ATM address, which includes a private network-network interface (PNNI) peer group identification based on a manufacturer of the device and a product group to which the device belongs, to facilitate communication on the ATM network;
>
> an interface to allow the manufacturer of the device to input the ATM address into the memory storage component at a point of manufacture automatically.

(New claim 33) (emphasis added)

In contrast, Sathaye does not disclose an interface to allow the manufacturer of the device to input the ATM address into the memory storage component at a point of manufacture automatically. The device disclosed in Sathaye is as described above.

Given that new claims 34-43 depend from claim 33, applicants submit that new claims 34-43 are not anticipated under 35 U.S.C. §102 by the reference cited by the Examiner.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: May 9, 2001

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VERSION OF AMENDED SPECIFICATION AND CLAIMS WITH MARKINGS TO SHOW CHANGES

IN THE SPECIFICATION

At page 2, lines 10 through 20, of the specification, "In known ATM systems, each node performing the PNNI protocol must be assigned a unique 20-byte ATM address in a standard format specified by the ATM Forum User-Network Interface Specification (Presently version 3.1). The "PNNI protocol" refers to the protocol specified by the ATM Forum Private Network-Network Interface Specification (presently version 1.0)."

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and a selector field 160. The ATM address 100 is an ATM End System Address as defined in Section 5.1.3.1 of the ATM Forum User-Network Interface Specification (version 3.1)".

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Page 6, line 20 through page 7, line 2, "The manufacturer-specific field 130 comprises four bytes and has a value assigned by the manufacturer. In a preferred embodiment, when the manufacturer is Cisco Systems, Inc., of San Jose, California, this value is uniformly selected to be hexadecimal 81 00 00 00. There is no special significance to the special value, which could be any

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